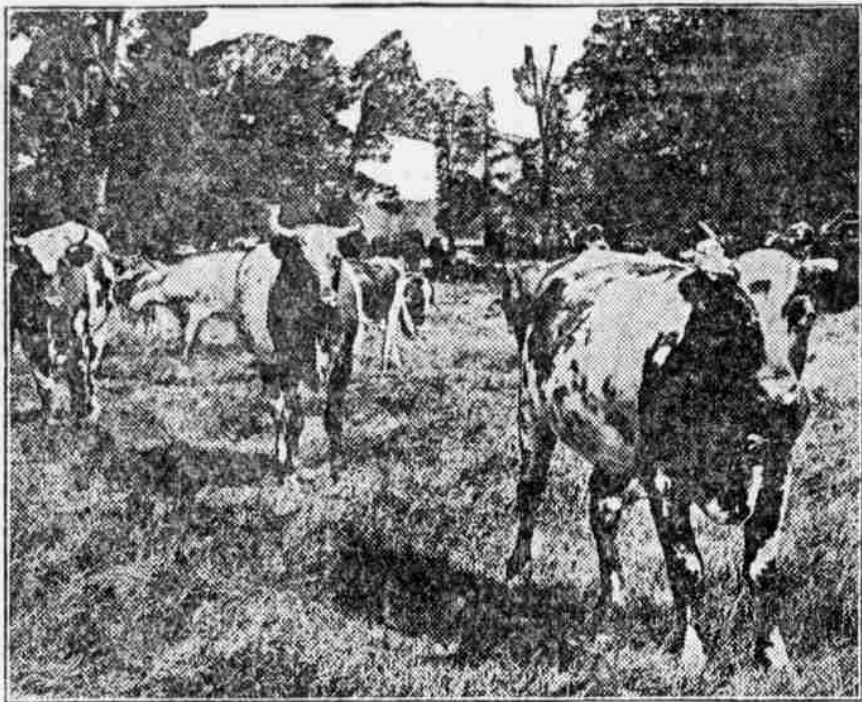


MAKING the FARM PAY

By C. I. BRAY



Man Feels Independent When He Has a Good Herd of Cattle.

BUILDING UP A DAIRY HERD

Generally speaking, there is no best breed of dairy cow, although some are better for certain purposes than others. There are first-class cows in every breed, and also many unprofitable ones. Success depends more upon the selection of profitable individuals than upon the breed. The Jersey, Holstein, Guernsey and Ayrshire breeds are considered the standard special-purpose breeds, and the Red Polled, Shorthorn and the Brown Swiss the most common dual-purpose breeds, being used to some extent for beef production. The Jerseys and Guernseys are considered most economical for production of utterfat, and the Holsteins and Ayrshires are considered more profitable for milk production. The Holsteins should be kept on good pasture and on heavy rations. Profitable animals must be selected on basis of performance (shown by milk and butter records) and developed by care and good feeding. The beginner should consider his market carefully, select the breed he likes best from those most suited to local conditions and then stick with that breed, building up his herd by selection.

The dairyman, to be successful, must keep only such cows that pay a good annual profit. Many cows do not pay for their feed, while others may pay from \$5 to \$50 per year over expenses. The unprofitable cow is worth only what she will bring on the butcher's block (about \$30). The cow that produces \$50 profit over all expenses is worth ten cows that produce no profit, both as a breeder and producer, and should at least be valued at \$100 to \$150.

Breeding Better Than Buying.

Some dairymen buy fresh cows, breeding to a common sire and selling the young stock and old cows to the butcher. Others breed their own stock, use good sires, keep milk records and develop heifers from their best stock. The first method has only one advantage, that of allowing the dairyman to use all his pastures and buildings for cows that are milking. Recognizing the value of a good cow, the dairyman should always be prepared to buy one that is better than what he has, but it is much safer to depend on breeding up his own herd. The man who depends on buying gets cull stock, usually, unless he pays much more than it would cost to breed it himself. He also runs a big risk of buying diseased cattle with tuberculosis or contagious abortion. The man who breeds up his own stock can develop his heifers to good advantage so that they will be quiet and gentle and also healthy. He will usually be able to build up a good herd more surely and quickly.

Sire Is Half the Herd.

The sire is half the herd, but if he is a good one he is pretty near all of it. Grade cows may range in value from \$25 to \$250, and the sire that can produce the latter kind is worth many times more than the one that produces the \$25 kind. If a heifer can be produced that, when mature, will give 50 to 100 pounds more butter or 1,000 pounds more milk per year than her dam, the annual profit from such a heifer will accordingly be from \$10 to \$25 more than from the foundation cow. If ten such heifers were raised every year, the increased profit will be \$100 to \$250 more per year; if 20 heifers are raised, \$200 to \$500 will be gained each year by using a good bull. Consequently it is hard to understand how a progressive dairyman can afford to let a difference of \$100 or so in the original cost of a herd bull stand between him and an additional annual income of \$500. Yet dairymen will buy \$25 scrub bulls that are worse than useless as improvers of their herds, while purebred males costing \$50 to \$150 more would pay for themselves many times over in the increased value of the young stock produced. The sire that cannot increase the value of the herd is dear at any price. While the owner of a grade herd may be justified in buying as high-priced a sire as the breeder of pure breeds, a good animal will always be cheapest in the end.

Selection of Dairy Sire.

Only a purebred sire should be used, from ancestors of known merit and of good breed type, masculinity and constitution. Select, if possible, the son of a first-class dairy cow as the characteristics of the dam are most likely to be reproduced in the heifers of the next generation. The best indication

of the value of a bull is the character of his offspring, and this is the safest and surest guide. Many aged bulls with good records and splendid offspring are sold at bargain prices to avoid inbreeding, and afford an excellent opportunity to the man who wishes a good bull at moderate cost. Strength and virility must go with good ancestry to make a good sire. The grade sire should have no place in the dairy herd.

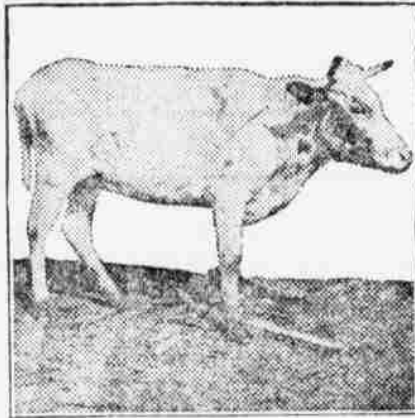
Select Cows on Their Records.

Cows may be selected according to type and apparently by men who are good judges, but the only safe and sure basis for selection is the annual milk record.

The keeping of milk records in all parts of the country and in all classes and kinds of herds has shown:

1. That some herds make large annual profits while others make none.
2. That in the best herds there are usually some unprofitable cows, and very many such in the poorer herds.
3. That without records the owners of the herds could not tell with any degree of accuracy which cows were paying profitably and which were not.
4. That many dairymen would have made a greater yearly profit had they sent their herd to the butcher at the beginning of the year, thus saving half their feed and labor expenses and getting all the profit from their best cows.

A fact worth noting is that several world's record cows of different breeds, now worth thousands of dollars each,



Scrub Cow Which Lacked \$1,954 of Producing Enough Milk to Pay for Her Feed and Care in One Year.

were sold to their present owners for small sums by men who had not taken the trouble to find out what kind of cows they were keeping.

Essential to Keep Records.

It is difficult, therefore, to see how a dairyman can afford to run the risk of keeping unprofitable cows by refusing to keep records. A merchant who could not take time to keep books would soon go bankrupt; and business methods must be the rule on the dairy farm if a profitable business is to be built up. Even if it should take one week's work in a year to keep a good system of records, the time will be well spent if the work of the year were to result in an annual profit of \$1,715, or a loss of \$539 as a consequence of keeping records or not keeping them. The time required is really very small. The milk record is the dairyman's barometer; by means of it he can keep checked up on his individual cows, on his milkers and on his system of feeding. By means of it he will notice any increase or decrease in milk flow, and in the latter case be able to avoid trouble by removing the cause. More interest is taken in feeding the cows carefully when their records are kept. A circular balance scale and a sheet of paper ruled off, together with the Babcock test will do the work. Cow testing associations are doing good work all over the country. From ten to twenty or more farmers may club together and agree to pay a qualified man to test their herds each month, sharing expenses equally. The system is particularly valuable to the men with purebred herds, as they can get their good animals tested for the advanced register. Record keeping helps the dairyman to get rid of his "robber."

Cull Out Unprofitable Cows.

Cows that prove unprofitable should be sold at once. Those paying only a small profit may be kept until better ones are bought or raised to take their places. Young heifers that do not show up during their first lactation period may sometimes make a good showing on a second year's trial. Good cows can often be purchased that will pay for their feed, care and cost prices in one year and return a good profit besides.

Orchard Information

TO CURB TENT CATERPILLAR

Undesirable Trees May Be Removed to Lessen Food Supply of Insect—Destroy Egg Masses.

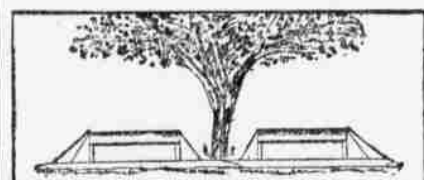
The apple tree tent caterpillar feeds principally on wild cherry and apple trees, but will attack many other plants. For control, undesirable trees may be removed to lessen its food supply. During the dormant period of trees, when the leaves are off, the egg masses are fairly conspicuous, and with a little practice may be readily found and burned. This work can be combined with pruning to good advantage. An asbestos torch will be satisfactory, or one may be made simply by tying rags to the end of a pole. The asbestos or rags are saturated with kerosene and lighted. Care is necessary that no important injury be done to the tree from the flame.

Tent caterpillars are readily destroyed by arsenicals sprayed on the foliage of trees infested by them. Any of the arsenical insecticides may be used, as paris green or arsenate of lead. The first is used at the rate of a half pound to 50 gallons of water. Milk of lime from two to three pounds, or stone lime is added to neutralize any caustic effect of the arsenical on the foliage. Arsenate of lead is used at the rate of two pounds to each 50 gallons of water. Applications are made while the caterpillars are yet small, as these succumb more quickly to poisons than those more nearly full grown. Prompt treatment stops further defoliation of the trees.

SAVING ALL THE WINDFALLS

Stretcher Arranged Under Trees Catches All Fruit That May Drop or Is Shaken Off.

A great amount of fruit is lost annually through windfalls that are left to rot on the ground or picked up for hog or poultry feed. A California man has patented stretcher arrangements to set under trees to save this fruit that drops or is shaken off. Blankets



Saving the Windfalls.

are stretched over the platform clear around the tree, a semicircular cut-away portion allows it to be fitted about the tree trunk. Side blankets receive the fruit and direct it away to prevent bruising in case it falls directly on the platform.—Farming Business.

WHEN SPRAY DOESN'T STICK

French Scientists Have Perfected Means of Making Bordeaux Mixture Adhere to Foliage.

According to the Experiment Station Record, two Frenchmen, V. Vernorel and E. Dantony, have perfected a means of making bordeaux mixture stick, and to better enable it to wet the foliage to which it is applied. This process is through the addition of casein to the spray mixture.

"For the preparation of the casein," says the Record, "it is suggested that 50 grams of powdered casein be added to 100 grams of freshly slaked powdered lime, mixed with a small amount of water in the form of a paste. After this has stood for a short period, an additional amount of water may be added, until about a liter of liquid is obtained. This is then added to 100 liters of bordeaux mixture and is said to increase the adhesiveness very greatly."

Gelatin has been found to confer upon sprays containing it an excellent spreading and wetting capacity and perfect adherence. Casein proved to be one of the best agents for increasing the wetting capacity of a spray, and to leave almost entirely intact the chemical composition of the precipitate, which it is adapted to distribute and fix upon the leaves.

CONTROL OF BLIGHTED TREE

Only Method of Keeping Disease in Check Is to Cut Out All Limbs Which Are Affected.

Spraying will not control blight on fruit trees. The only method of keeping this disease in check is to cut out the blighted limbs, making the cut about six inches below any signs of the blighted condition. The wounds should be disinfected with strong lime-sulphur solution or any other suitable disinfectant.

Trees which are susceptible to the blight are either old trees which are weakened, or young trees which are making too rapid growth. Blight in an orchard is often best checked by using some means of checking the growth of the trees, such as leaving the orchard in sod, keeping fertilizers from the orchard, and very light pruning, if any.

There are seasons when blight is worse than in others, because of the weather conditions, and during the last two years it has been quite serious in most all parts of the country.

POULTRY FACTS

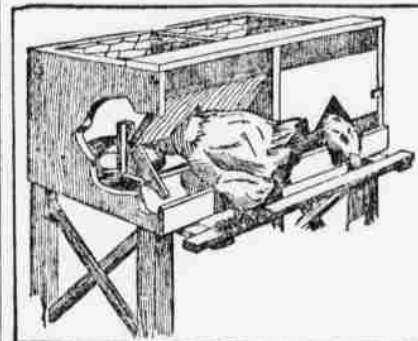


ILLUSTRATION OF TRAP NEST

Device Intended to Assist Poultry Breeder to Find Out Best Layers and Keep Pedigrees.

This is an illustration of a trap nest—not a guillotine. It is designed to help the poultry breeder to find out his good layers and to keep pedigrees. It is very simple. It may be attached to the under side of the dropping board, with the front facing the pen and arranged so that it can be easily removed. The dropping board will then be the roof of the nest.

The rear of the nest may be of wire for the sake of ventilation. If the nest is placed on the wall, slats or wire should be inserted from the front of the nest to the wall at a sharp angle to prevent the hen from roosting on the nest. When she enters the nest, the hen's back raises the door, which releases the catch and allows the door



Trap Nest in Operation.

to shut. The catch should be set so that its edge just holds the door, the position being regulated by a screw or nail at the lower inside edge of the catch. A washer on the screw will prevent it from sticking. The guard around the catch holds the nesting material away. The nest should be visited frequently to release the hens.—Popular Science Monthly.

DUCKS THRIVE ON SOFT FOOD

Nutritive Organs Not Adapted to Whole Grains—Give Them Green Feed in Abundance.

The duck's nutritive organs are not adapted to whole grains. The natural diet of ducks is soft food, worms and bugs, from the banks and marshes. For best development, ducks should have soft feed, always accompanied by water in pans deep enough to permit them to submerge the beak to the eyes. Give them lettuce, spinach, beet tops, onion tops, weeds—green food of some kind in abundance.

For a few ducks the vegetable parings may be boiled and fed with mash; small potatoes, not to exceed a fifth of the mash, may be used. Too many potatoes are not good.

For stock ducks in autumn and early winter, an excellent ration is equal parts of cornmeal, wheat bran and boiled vegetables, with 10 per cent of beef scrap fed morning and evening; at noon a little cracked corn, wheat or oats. When the birds begin to lay, increase the proportion of meal and scrap, and add low-grade flour, making a mash about as follows: Meal, one part; bran, one part; low-grade flour, one part; vegetables, one part, with from 12 to 15 per cent of beef scrap.

GOOD REMEDY FOR GAPEWORM

Parasites Are Usually Found in Poultry Raised on Low Land—Plow Infected Areas.

Gapeworms are commonly found in poultry raised on low land; they may be seen attached to the walls of the windpipe. For treatment restrict the birds to well-drained quarters and plow the infected areas. Individual treatment necessitates the removal of the worms. By a feather moistened with turpentine swab out the windpipe.

RATION FOR GROWING CHICKS

Good Dry Mash Is Made of Mixture of Cornmeal, Wheat, Bran and High-Grade Beef Scraps.

A good dry mash for feeding growing chicks in hoppers is made of one part cornmeal, two parts wheat bran and half a part of high-grade beef scraps, though most any mixture of ground grains which does not include too much fattening material will prove satisfactory for this purpose if the chicks are on free range.

RANGE FOR BREEDING DUCKS

Fowls Should Not Be Confined During Balance of Season—Do Well Without Swimming.

The ducks which are intended for next year's breeders should be allowed to have free range during the rest of the season and if there is a place for them to swim, it will be better for them, though they do well without swimming.

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